

# TIME PERIODS OF INTEREST. HIV, STDs VIRAL HEPATITIS

### **Definitions**

### **Window Period**

The time between when a person is exposed to a bacteria or virus and when a test can accurately detect organism.

#### **Incubation Period**

The time elapsed between exposure to a bacteria or virus and when symptoms and signs are first apparent.

### HIV

### **Window Period**

The window period for HIV tests depending on the test technology being utilized.

- Antibody Tests: 23 to 90 Days. This includes the Chembio SURE CHECK® HIV Rapid Test.
- 4th Generation Test: 18 to 45 Days. This test detects antigens, which are a part of the virus and present during acute HIV.
- Nucleic Acid Test: 10 to 33 Days.

Note: If an individual is concerned about being exposed to HIV in the last 72 hours, they should be referred to a health care provider immediately for post-exposure prophylaxis (PEP) evaluation.

### **Incubation Period**

Within 2 to 4 weeks after infection. People may experience a flu-like illness, lasting for a few weeks; these symptoms indicate an acute HIV infection.

## Chlamydia & Gonorrhea

### **Window Period**

"The nucleic acid amplification tests (NAATs) are very sensitive and are able to detect a low number of organisms. The "window period" for the chlamydia and gonorrhea NAAT test is unknown. It may range from ~5 days up to 2 weeks. If patients have a known exposure, they should be tested and treated. If there was a risk exposure, they should be tested at time of visit. If exposure was within 1 to 5 days post exposure and they were uncertain about chlamydia or gonorrhea exposure, retesting two weeks after exposure would be recommended if more reassurance is needed. "– STD Clinical Consultation Network Opinion.

### **Incubation Period**

### Chlamydia (CT)

In patients who develop symptomatic infection, the incubation period is estimated to be 7 to 21 days. Gonorrhea (GC)

The incubation period ranges from 1 to 14 days, with most men becoming symptomatic within 2 to 5 days after exposure. The incubation period in women is variable, but symptoms, when they do occur, usually develop within 10 days of exposure.

### **Time Periods**

- <u>Dual Therapy for Gonorrhea</u>. To be considered appropriately treated for GC, the azithromycin and ceftriaxone must be given on the same day. Appropriate treatment also occurs if ceftriaxone is administered within five days after the azithromycin dose. Patients are recommended to be retreated if they are given ceftriaxone in the clinic and don't pick up their azithromycin from the pharmacy on that same day.
- Test of Cure (testing 3 to 4 weeks after completing therapy):
  - Chlamydia: Only recommended for pregnant women.
  - Gonorrhea: Recommended for individuals with pharyngeal gonorrhea treated with an alternative regimen.
- Retesting: All individuals diagnosed with chlamydia and gonorrhea should be retested 3 months after completing treatment.
- Abstinence After Treatment. Persons treated for GC and CT should abstain from sexual intercourse for 7 days after single-dose therapy or until completion of a 7-day regimen and resolution of symptoms.

## **Syphilis**

### **Window Period**

There is varying sensitivity of syphilis serologic tests (Table 1). VDRL and RPR test results turn positive 1-2 weeks after chancre formation. FTA-ABS and TP-PA are generally considered equally sensitive in the primary stage of disease.







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Table 1. Sensitivity and Specificity of Common Serologic Tests in Untreated Syphilis

Sensitivity During State of Infection, % (range)				
Test	Primary	Secondary	Latent	Late
VDRL	78 (74-87)	100	95 (88-100)	71 (34-94)
RPR	86 (77-99)	100	98 (95-100)	73
FTA- ABS	84 (70-100)	100	100	96
TP-PA	88 (86-100)	100	100	NA
ELISA (IgG)	100	100	100	NA

### **Incubation Period**

- Primary Syphilis: The chancre typically occurs about 3 weeks (range 10 to 90 days) after exposure. The chancre lasts 3 to 6 weeks.
- Secondary Syphilis: 4 to 8 weeks after onset of primary chancre.
- Tertiary Syphilis: 1 to 20 years after exposure.
- Early Neurosyphilis: Early forms of neurosyphilis usually occur a few months to a few years after initial infection.
- Ocular syphilis: Symptoms may develop at any stage.

### **Hepatitis C**

### **Window Period**

HCV infection can be detected by anti-HCV (including HCV rapid tests) screening tests 4–10 weeks after infection. Anti-HCV can be detected in >97% of people by 6 months after exposure. HCV RNA can be detected as early as 2–3 weeks after infection.

### **Testing in Infants**

The optimal timing of HCV RNA testing is unknown, but 2 to 6 months after birth is reasonable. There is no value in repeated HCV RNA testing prior to 18 months of age. Anti-HCV testing should take place at or after 18 months of age. If infants are positive for HCV RNA at 2-6 months of age, between 25% to 50% will spontaneously resolve HCV by 3 years old. Note: The overall risk of vertical transmission is approximately 4% to 7% per pregnancy.

### **Incubation Period**

In those people who do develop symptoms, the average period from exposure to symptom onset is 2–12 weeks (range: 2–26 weeks).

### **Other Time Periods**

HCV can survive outside the body at room temperature, on environmental surfaces, for up to 3 weeks. With syringes, HCV has been shown to survive in the barrel of a syringe for up to 63 days.

### **Hepatitis B**

### **Window Period**

HBsAg will be detected an average of 4 weeks (range: 1–9 weeks) after exposure. All patients who do not remain chronically infected will be HBsAgnegative by 15 weeks after symptom onset.

### **Testing in Infants**

For infants born to HBsAg-positive mothers, postvaccination testing should be performed 1-2 months after completion of  $\geq 3$  doses of a hepatitis B vaccine series. Testing should not be performed before age 9 months in order to avoid detection of anti-HBs from hepatitis B immune globulin (HBIG) administered during infancy and to avoid detection of HBsAg from vaccine -- HBsAg can be transiently positive for 1-18 days after vaccination.

### **Incubation Period**

If symptoms occur, they begin an average of 90 days (range: 60–150 days) after exposure to HBV.

### **Other Time Periods**

HBV may survive outside the body at least 7 days. Approximately 90% of infants and 25%–50% of children aged 1–5 years will remain chronically infected with HBV. By contrast, approximately 95% of adults recover from HBV infection and do not become chronically infected.

### Resources

- Hepatitis C Treatment Guidelines
- CDC Hepatitis C Fact Sheet
- CDC Hepatitis B Fact Sheet
- National STD Curriculum
- CDC HIV Website



